VASCULAR MANAGEMENT

Caring for your Tunnelled Central Venous Catheter PATIENT GUIDE



WHAT IS A TUNNELLED CENTRAL VENOUS CATHETER?

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This booklet will give you information about the care of your catheter and things to look out for. For any other additional information you should contact your hospital doctor, nurse, GP or district nurse.

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A Tunnelled Central Venous Catheter (TCVC) is a long thin, flexible tube made of silicone. It has a cuff attached to it that helps to keep the device in place. It is inserted via a vein in the neck or chest. The end of the catheter remains external to the body (usually at the chest).

ATCVC is an intravenous catheter most often used for treatments lasting longer than six weeks and for medicines that could damage the small veins in the hand. TCVCs can remain in place for many months.

In addition, it can be used for parenteral nutrition and for the administration of drugs, antibiotics and cancer chemotherapy.

Why do I need this catheter?

It has been recommended that you have a TCVC inserted because you need intravenous (IV) therapy or access for an extended period of time. This catheter can be left in place for several weeks and means that you can finish your treatment without having to have repeated catheters placed.

Single Lumen Catheters – Internal diameters (mm):





HOW WILL IT BE INSERTED?

Your catheter will be put in by a specially trained nurse or doctor. The person inserting your catheter will treat it as a sterile procedure although it is not an operation. An ultrasound machine might be used to help find the most suitable vein. The nurse or doctor will be dressed in theatre clothing and will wear a sterile gown as well as a theatre hat, mask and sterile gloves. You will be covered with a sterile sheet during the procedure. This catheter is inserted under local anaesthesia in adults and under general anaesthesia in children.

A step-by-step guide to your procedure

- 1. Firstly you will be asked to sign a consent form once the procedure has been fully explained to you
- 2. Your catheter will be put in by a doctor or a specially trained nurse
- 3. The person inserting your catheter will treat it as a very clean procedure
- 4. The nurse or doctor will be dressed in theatre clothing and will wear a sterile gown as well as a theatre hat, mask and sterile gloves. You will be covered with a sterile sheet during the procedure
- 5. You might be attached to a vital signs monitor to take regular readings of your blood pressure, pulse and heart rate
- 6. Your skin will be cleaned and the area covered with a sterile drape
- 7. You will be given an injection of local anaesthetic to help numb the area before the device is inserted. This will sting before becoming numb. After that you will not feel pain but will be aware of pressure and some pushing
- 8. If required you can request a light sedation prior to device insertion
- 9. If you feel pain at any time please inform the nurse of doctor
- 10. Ultrasound will be used to visualise and puncture the vein safely
- II. X-ray screening might be used to help follow the catheter as it is guided into place
- 12. The catheter tip will end up in one of the large central veins
- 13. The device insertion procedure will take approximately 45 minutes to perform
- 14. You will have a small incision site at your neck or chest where access to the vein was gained. This will be closed with either one suture, steristrips (paper sutures) or skin glue
- 15. A sterile dressing will be applied covering the exit point of the catheter and a second occlusive dressing will cover the external part of the catheter
- 16. You might have to have a chest x-ray after your device in inserted. This will confirm that the catheter is in the correct position
- 17. Once this is done, your TCVC can be used.

LIVING WITH YOUR TUNNELLED CENTRAL VENOUS CATHETER

- Be careful not to exceed the maximum working pressures. Do not use syringes with a volume of less than 10ml. Small volume syringes lead to excessive injection pressures that can rupture the catheter with migration of the split section.
- Silicone is a very soft and very biocompatible material with a weakness in the event of mechanical damage. Minor damage can tear which results in leakages or snapping catheters. Do not handle sharp or pointed objects in the vicinity of the catheter.
- When dressing, flushing or using the catheter, hands must be washed and gloves should be worn.
- Three weeks after the insertion of your TCVC, the nurse or doctor will remove the suture at the exit site of the device.
- The dressings and needle free device 'access port' are usually changed on a weekly basis, unless they are loose or soiled when they should be changed immediately.
- You can change the dressing yourself if you have been shown how, otherwise you should contact your district nurse or return to the hospital for the dressing to be changed.
- It is advised that you do not get the dressing or 'access port' wet as this is an infection risk.
- You can shower with a special protective waterproof covering the catheter and access port.
- If you have a bath, make sure your catheter is not placed in the bathwater unless it is covered with a special protective water proof cove.
- Swimming is not recommended when you have a TCVC in place.
- The removal of the catheter involves a minor surgical procedure under local anesthesia.

HANDLING OF THE CATHETER HUBS

- Ensure strict aseptic conditions each time that the catheter hub is handled, particularly when connecting infusion or injection accessories.
- If the catheter hub must be opened, it is recommended that the TCVC be clamped with the Roberts clamp provided.
- Check the exit point regularly to detect any sign of reddening, inflammation or local pain.
- All handling of the catheter (connection of infusion devices, injections, blood sampling, etc.) must be carried out using a compress soaked in antiseptic.
- When the catheter is not in use, close the hub with an injectable membrane or a Bionector[®]. Following this routine the clamps should not be closed continuously.

WARNING:

- Alcohols such as ethanol and isopropanol do not change the physical properties of the silicone elastomer if they are used briefly without prolonged contact and if the silicone catheter is then dried fully.
- Silicone is a soft and highly biocompatible material but can be weakened by mechanical damage. Any damage to the catheter may result in leakage or catheter fracture. To prevent this, avoid handling sharp or pointed objects near the catheter.
- The use of iodine tincture and organic solvents such as acetone, chlorinated solvents, ethyl acetate, etc. is inadvisable. These products can degrade or irreversibly deform the silicone elastomer.
- Keep protected from heat, moisture and light. To dispose of, place the contaminated items in the appropriate receptacle. This device is not made with dry or natural rubber latex.
- Do not expose this catheter to contact with iodine based solutions!
- CAUTION: Do not bend the catheter or the extension line permanently to avoid damage to the catheter.



ARE THERE ANY RISKS ONCE IT IS IN PLACE?

Many patients complete their treatment without having any problems with their catheter, but there are certain risks involved and it is important that you are aware of these problems, what to look for and what to do if they occur. The person inserting your catheter will spend time discussing this with you but please read the information contained in this booklet as well.

Vein irritation

Because the catheter sits inside the vein this can cause a little irritation especially in the first five days.

What should I look out for?

The area of the insertion might be a little red the first few days after the catheter placed.

What should I do?

If the vein with the catheter in it becomes red or painful, please inform your doctor or nurse immediately. Warm packs might be used to help with the irritation.

Infection

Very occasionally infection can occur when you have a TCVC catheter inserted. This may result in additional medical treatment, and possible removal of the catheter. A clean or sterile procedure should be used by anyone using or caring for your catheter.

This includes:

- Hand washing
- Wearing gloves
- Using antiseptic swabs to clean the end of the catheter for 15 30 seconds before use.

What should I look out for?

- The catheter exit site may become red and swollen. The site might be hot to touch and you might experience tenderness at the catheter exit site.
- You might get a temperature, fever, chills or feel generally unwell.

What should I do?

Contact your healthcare professional immediately.



Catheter movement

What should I look out for? The cuff at the end of the catheter becomes visible.

What should I do? Secure the catheter in place and inform your nurse. Do not use the catheter until it has been checked.

What if my catheter falls out?

Inform your nurse immediately. Press firmly on the hole in your skin for a few minutes then apply a small sterile dressing. If it continues to bleed reapply pressure until it stops. Keep the catheter for the nurse to inspect.

Catheter breakage

What should I look out for? You might see leakage from the catheter.

What should I do?

If the catheter breaks or you accidentally cut the catheter, clamp the catheter above the cut and please contact your healthcare professional. Stop any infusions that are running.

Catheter blocked

Sometimes your catheter may block. It may be possible to unblock your catheter but if this is not possible it will need to be removed. To help prevent this your catheter must be flushed on a regular basis and after medication has been given.

What should I look out for? Infusions will not run and your catheter will not be able to be flushed.

What should I do? Contact your healthcare provider.



HANDWASHING TECHNIQUE

A nine step handwashing technique was devised by Ayliffe et al (1978), and it is used regularly by healthcare professionals. Using it yourself may improve the care of your catheter. The technique uses soap or an antiseptic solution and running water, and each step consists of five strokes forward and five backward.



··· Step one

Wet hands thoroughly before applying washing agent.

Step two …… Rub palm to palm.



··· Step three

Right palm over back of left hand and left palm over back of right hand.



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Step four

Palm to palm with fingers interlaced.



VYGON



Step five

Backs of fingers to opposing palms with fingers interlocked.

Step six .

Wash each thumb by clasping and rotating in the palm of the opposite hand.

···· Step seven

Rotational rubbing back and forwards with clasped fingers of right hand in left palm and vice versa.

Step eight

Rinse hands under running water.



Step nine

Dry hands thoroughly.



Notes





IMPORTANT INFORMATION

Your TCVC information

Code number:		
Length:	Date of insertion: /	_/
In case of queries please contact:		
Name:		
Title:		
Telephone Number:		

Special instructions

- 1. Dressing and securement device should be changed every 7 days (unless it becomes wet or falls off).
- 2. The needle-free device 'bung' should be changed every _____ days.
- 3. Your catheter should be flushed every day and after every drug administration.
- 4. Ensure hands are washed and gloves are worn when the catheter is accessed.
- 5. Your own instructions:

For further information, please contact: info-uk@vygon.com

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